

Cement Test Certificate

Final

Lot 242 Russell Road East, Munster WA 6166 PO Box 38, Hamilton Hill WA 6963 T: +61 8 9411 1000 F: +61 8 9411 1150

Type GP General Purpose Cement **Product Certified:**

Test Certificate Number:

Produced At: Cockburn Cement, Munster Plant, WA

Sample Code: B09140b Sample Date: 02/08/2022

| Nominal Blend | Requirements | Result |
|---|--------------|---------|
| Clinker | | >86.5 % |
| Ground Granulated Iron Blast-Furnace Slag | | Nil |
| Mineral Addition | Max 7.5 % | <7.5 % |
| Calcium Sulphate | | <5 % |
| Minor Additional Constituents | Max 5 % | Nil |

| Reportable Property | Test Method | Requirements of AS3972 | Result |
|---|-------------|------------------------|-----------|
| 2 Day Chranath | AS2350.11 | N/R | 41.2 MPa |
| 3 Day Strength | | • | |
| 7 Day Strength | AS2350.11 | Min 35.0 MPa | 49.9 MPa |
| 28 Day Strength | AS2350.11 | Min 45.0 MPa | 64.7 MPa |
| Initial Set Time | AS2350.4 | Min 45 min | 105 min |
| Final Set Time | AS2350.4 | Max 360 min | 165 min |
| Soundness | AS2350.5 | Max 5 mm | 0 mm |
| Sulfuric Anhydride content (SO ₃) | AS2350.2 | Max 3.5 % | 3.0 % |
| Chloride Ion | BH-TM-0507 | Max 0.10 % | 0.014 % |
| Other Properties | | | |
| SiO ₂ | AS2350.2 | N/R | 19.0 % |
| Al_2O_3 | AS2350.2 | N/R | 5.0 % |
| Fe ₂ O ₃ | AS2350.2 | N/R | 2.7 % |
| CaO | AS2350.2 | N/R | 62.6 % |
| MgO | AS2350.2 | N/R | 1.4 % |
| Na ₂ O Equivalent | AS2350.2 | N/R | 0.6 % |
| Loss on Ignition | AS2350.2 | N/R | 4.5 % |
| Fineness Index | AS2350.8 | N/R | 405 m²/kg |
| Normal Consistency | AS2350.3 | N/R | 28.3 % |
| | | | |

This document shall not be reproduced except in full.

REMARKS

These test result apply specifically to the sample as received at the Adelaide Brighton Cement Birkenhead Laboratory (Accreditation number: 252), 62 Elder Rd Birkenhead SA 5015.

This despatch grab sample complies to the requirements of AS3972:2010, Type GP Cement.

N/R = No Requirement



Accredited for compliance with ISO/IEC 17025 - Testing. The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory

M. Wythe

Issue Date: 30/09/2022